AMENDMENTS TO THE CLAIMS

Please amend claims 1, 2, 4, 5, 6, 10, 15, 26, 27, 29, 31, 38, 39, 40, 50, 51, 53, and 54 as follows.

1   1.   (Currently Amended) A method of managing electronic mail, the method comprising the

2   computer-implemented steps of:

3   automatically generating a set of certain criteria based on contents of a plurality of

4   electronic mail messages received over a network;

5   wherein the step of automatically generating a set of certain criteria includes:

6   automatically determining what particular content to use to classify identify

7   electronic mail messages as a first type of electronic mail message by

8   performing steps that include determining that a threshold number of said

9   plurality of electronic mail messages have a particular content; and

10   in response to determining that a threshold number of said plurality of electronic

11   mail messages have said particular content, generating one or more criteria

12   that classifies identifies electronic mail messages that have said particular

13   content as a the first type of electronic mail;

14   receiving an electronic mail message over said network;

15   determining whether said electronic mail message satisfies said set of one or more criteria;

16   if said electronic mail message satisfies said set of one or more criteria, then processing

17   said electronic mail message as said first type of electronic mail;

18   if said electronic mail message does not satisfy said set of one or more criteria, then

19   processing said electronic mail message as a second type of electronic mail;

20   wherein said first type of electronic mail is processed differently than said second type of

21   electronic mail; and

22   wherein at least one message of said plurality of electronic mail messages has not been

23   classified, before determining that a threshold number of said plurality of

24   electronic mail messages have a particular content, as belonging to said first type.

1   2.   (Currently Amended) The method of Claim 1 wherein:

2   the method further comprises the step of generating a message signature for said

3   electronic mail message based on contents of said electronic mail message; and

4   the step of determining whether said electronic mail message satisfies ~~said set of~~one or

5   more criteria ~~includes determining whether~~is based on said message signature

6   ~~satisfies said set of criteria~~.

1   3.   (Previously Presented) The method of Claim 1, wherein determining that a threshold

2   number of said plurality of electronic mail messages have a particular content includes

3   determining that at least a portion of each of said plurality of electronic mail messages

4   have said particular content.

1   4.   (Currently Amended) The method of Claim ~~1~~1, wherein the step of generating ~~a set~~

2   ~~of~~certain criteria based on contents of a plurality of electronic mail messages received

3   over said network includes tracking how many message signature elements of said

4   plurality of electronic mail messages match.

1   5.   (Currently Amended) The method of Claim 1 wherein the step of generating ~~a set~~

2   ~~of~~certain criteria based on contents of a plurality of electronic mail messages received

3   over said network includes the steps of:

4 generating message signatures for each electronic mail message of said plurality of

5   electronic mail messages, wherein each message signature includes one or more

6   message signature elements; and

7 counting how many of said one or more message signature elements match message

8   signature elements from other message signatures.

1 6. (Currently Amended) The method of Claim 5 wherein the step of determining whether

2 said electronic mail message satisfies said ~~set of~~one or more criteria includes determining

3 whether a message signature generated for said electronic mail message includes at least

4 one message signature element that matches a threshold number of message signature

5 elements of previously generated message signatures.

1 7. (Previously Presented) The method of Claim 6 wherein the step of determining whether a

2 message signature generated for said electronic mail message includes at least one

3 message signature element that matches a threshold number of message signature

4 elements further includes determining whether a message signature generated for said

5 electronic mail message includes at least one message signature element that matches a

6 threshold number of message signature elements of previously generated message

7 signatures that are associated with a period of time.

1 8. (Original) The method of Claim 1 wherein the step of processing said electronic mail

2 message as a first type of electronic mail includes adding a bulk electronic mail flag to

3 said electronic mail message.

1   9.   (Original) The method of Claim 8, further including the steps of:

2   after processing said electronic mail message as a first type of electronic mail,

3   transmitting said electronic mail message to an electronic mail server;

4   said electronic mail server receiving said electronic mail message;

5   said electronic mail server determining whether said electronic mail message contains

6   said bulk electronic mail flag; and

7   if said electronic mail message contains said bulk electronic mail flag, then processing

8   said electronic mail message without further verifying whether said electronic

9   mail message is bulk electronic mail.

1   10.   (Currently Amended) A method of managing electronic mail, the method comprising the

2   steps of:

3   a central server receiving from ~~an~~a set of electronic mail ~~server~~servers a message

4   signature generated from an electronic mail message;

5   an electronic mail server determining whether said message signature satisfies a set of

6   <u>one or more</u> criteria<u>, wherein said set of one or more criteria is</u> based on message

7   signatures previously received by said central server from ~~a~~<u>the</u> set of electronic

8   mail servers;

9   ~~wherein said set of criteria classifies said electronic mail message and a threshold number~~

10   ~~of electronic mail messages as having a particular content;~~

11   if said received message signature satisfies ~~a~~<u>said</u> set of<u> one or more</u> criteria, then said

12   electronic mail server processing said electronic mail message as ~~a~~ bulk electronic

13   mail ~~message; and~~

14   ·   wherein the step of said electronic mail server determining whether said message

15   signature satisfies a set of <u>one or more</u> criteria includes determining whether a

16   portion of said message signature matches a portion of each of a threshold number

17   of message signatures previously received by said central server from said set of

18   electronic mail servers<s>.</s>; <u>and</u>

19   <u>wherein said threshold number of message signatures are generated from a plurality</u>

20   <u>electronic mail messages that include at least one message that has not been</u>

21   <u>identified, as bulk electronic mail, before determining whether a portion of said</u>

22   <u>message signature matches a portion of each of a threshold number of message</u>

23   <u>signatures previously received by said central server from said set of electronic</u>

24   <u>mail servers.</u>

1   11.   (Canceled)

1   12.   (Previously Presented) The method of Claim 10, wherein:

2   the step of a central server receiving from an electronic mail server a message signature

3   includes receiving a set of one or more values generated by a one-way hash

4   function; and

5   the step of said electronic mail server determining whether a portion of said message

6   signature matches includes determining whether at least one of said set of one or

7   more values matches a threshold number of previously received values generated

8   by a one-way hash function.

1   13.   (Original) The method of Claim 12, the method further including the step of transmitting

2   one or more messages to said electronic mail server specifying changes to one or more

3   routines invoked by said electronic mail server to generate message signatures.

1   14.   (Original) The method of Claim 13, wherein the step of transmitting one or more

2   messages includes transmitting platform-independent byte code.

1   15.   (Currently Amended) A method of managing electronic mail transmitted over a network,

2   the method comprising the steps of:

3   a central server receiving from a set of electronic mail servers certain message signatures

4   generated from electronic mail messages received by said set of electronic mail

5   servers, wherein each message signature of said certain message signatures

6   includes one or more message signature elements;

7   said central server generating counts of how many times said one or more message

8   signature elements are matched by message signature elements from message

9   signatures generated for other electronic mail messages; and

10   said central server transmitting a message reflecting said counts.

1   16.   (Previously Presented) The method of Claim 15, wherein:

2   the step of a central server receiving includes receiving a particular recipient signature

3   associated with a particular message signature; and

4   the step of generating counts includes generating counts of how many times said one or

5   more message signature elements match message signature elements that are:

6   generated for other electronic mail messages, and

7   associated with a recipient signature that differs from said particular recipient

8   signature.

1   17.   (Original) The method of Claim 16, wherein the step of transmitting messages reflecting

2   said counts includes transmitting said counts.

1   18.   (Previously Presented) The method of Claim 16, wherein the step of transmitting

2   messages reflecting said counts includes transmitting message signature elements

3   associated with counts greater than a threshold.

1   19 - 25.   (Canceled)

1   26.   (Currently Amended) A computer-readable medium carrying one or more sequences of

2   one or more instructions for managing electronic mail, wherein the execution of the one

3   or more sequences of the one or more instructions causes the one or more processors to

4   perform the steps of:

5   automatically generating ~~a set of~~certain criteria based on contents of a plurality of

6   electronic mail messages received over a network;

7   wherein the step of automatically generating ~~a set of~~certain criteria includes~~-~~:

8   automatically determining what particular content to use to ~~classify~~identify

9   electronic mail messages as a first type of electronic mail message by

10   performing steps that include determining that a threshold number of said

11   plurality of electronic mail messages have a particular content~~;~~, and

12   in response to determining that a threshold number of said plurality of electronic

13   mail messages have ~~a~~said particular content, generating one or more

14   criteria that ~~classifies~~identifies electronic mail messages that have said

15   particular content as ~~a~~the first type of electronic mail;

16   receiving an electronic mail message over said network;

17   determining whether said electronic mail message satisfies said ~~set of~~one or more criteria;

18   if said electronic mail message satisfies said ~~set of~~one or more criteria, then processing

19   said electronic mail message as said first type of electronic mail;

20   if said electronic mail message does not satisfy said ~~set of~~one or more criteria, then

21   processing said electronic mail message as a second type of electronic mail;

22   wherein said first type of electronic mail is processed differently than said second type of

23   electronic mail; and

24   wherein at least one message of said plurality of electronic mail messages has not been

25   classified, before determining that a threshold number of said plurality of

26   electronic mail messages have ~~said~~a particular content, as belonging to said first

27   type.

1   27.   (Currently Amended) The computer-readable medium of Claim 26 wherein:

2   the computer-readable medium further comprises sequences of instructions for

3   performing the step of generating a message signature for said electronic mail

4   message based on contents of said electronic mail message; and

5   the step of determining whether said electronic mail message satisfies said ~~set of criteria~~

6   ~~includes determining whether~~one or more is based on said message signature

7   ~~satisfies said set of criteria~~.

1   28.   (Previously Presented) The computer-readable medium of Claim 26 wherein determining

2   that a threshold number of said plurality of electronic mail messages have a particular

3   content includes determining that at least a portion of each of said plurality of electronic

4   mail messages have said particular content.

1   29.   (Currently Amended) A computer-readable medium carrying one or more sequences of

2   one or more instructions for managing electronic mail, wherein the execution of the one

3   or more sequences of the one or more instructions causes the one or more processors to

4   perform the steps of:

5   a central server receiving from ~~an~~a set of electronic mail ~~server~~servers a message

6   signature generated from an electronic mail message;

7   an electronic mail server determining whether said message signature satisfies a set of

8   one or more criteria, wherein said set of one or more criteria is based on message

9   signatures previously received by said central server from ~~a~~the set of electronic

10   mail servers;

11   ~~wherein said set of criteria classifies said electronic mail message and a threshold number~~

12   ~~of electronic mail messages as having a particular content;~~

13   if said received message signature satisfies ~~a~~said set of one or more criteria, then said

14   electronic mail server processing said electronic mail message as ~~a~~bulk electronic

15   mail ~~message; and~~

16   wherein the step of said electronic mail server determining whether said message

17   signature satisfies a set of one or more criteria includes determining whether a

18   portion of said message signature matches a portion of each of a threshold number

19   of message signatures previously received by said central server from said set of

20   electronic mail servers-; and

21   wherein said threshold number of message signatures are generated from a plurality

22   electronic mail messages that include at least one message that has not been

23   identified, as bulk electronic mail, before determining whether a portion of said

24   message signature matches a portion of each of a threshold number of message

25   signatures previously received by said central server from said set of electronic

26   mail servers.

1   30.   (Canceled)

1   31.   (Currently Amended) A computer-readable medium carrying one or more sequences of

2   one or more instructions for managing electronic mail, wherein the execution of the one

3   or more sequences of the one or more instructions causes the one or more processors to

4   perform the steps of:

5   a central server receiving from a set of electronic mail servers certain message signatures

6   generated from electronic mail messages received by said set of electronic mail

7   servers, wherein each message signature of said certain message signatures

8   includes one or more message signature elements;

9   said central server generating counts of how many times said one or more message

10   signature elements are matched by message signature elements from message

11   signatures generated for other electronic mail messages; and

12   said central server transmitting a message reflecting said counts.

1   32 – 37 (Canceled)

1   38.   (Currently Amended) The computer-readable medium of Claim 26 wherein the step of

2   generating ~~a set of~~certain criteria based on contents of a plurality of electronic mail

3   messages received over said network includes tracking how many message signature

4   elements of said plurality of electronic mail messages match.

1   39.   (Currently Amended) The computer-readable medium of Claim 26 wherein the step of

2   generating ~~a set of~~certain criteria based on contents of a plurality of electronic mail

3   messages received over said network includes the steps of:

4   generating message signatures for each electronic mail message of said plurality of

5   electronic mail messages, wherein each message signature includes one or more

6   message signature elements; and

7   counting how many of said one or more message signature elements match message

8   signature elements from other message signatures.

1   40.   (Currently Amended) The computer-readable medium of Claim 39 wherein the step of

2   determining whether said electronic mail message satisfies said ~~set of~~one or more criteria

3   includes determining whether a message signature generated for said electronic mail

4   message includes at least one message signature element that matches a threshold number

5   of message signature elements of previously generated message signatures.

1   41.   (Previously Presented) The computer-readable medium of Claim 40 wherein the step of

2   determining whether a message signature generated for said electronic mail message

3   includes at least one message signature element that matches a threshold number of

4   message signature elements further includes determining whether a message signature

5   generated for said electronic mail message includes at least one message signature

6   element that matches a threshold number of message signature elements of previously

7   generated message signatures that are associated with a period of time.

1   42.   (Previously Presented) The computer-readable medium of Claim 26 wherein the step of

2   processing said electronic mail message as a first type of electronic mail includes adding

3   a bulk electronic mail flag to said electronic mail message.

1   43.   (Previously Presented) The computer-readable medium of Claim 42, the steps further

2   including

3   after processing said electronic mail message as a first type of electronic mail,

4   transmitting said electronic mail message to an electronic mail server;

5   said electronic mail server receiving said electronic mail message;

6   said electronic mail server determining whether said electronic mail message contains

7   said bulk electronic mail flag; and

8   if said electronic mail message contains said bulk electronic mail flag, then processing

9   said electronic mail message without further verifying whether said electronic

10   mail message is bulk electronic mail.

1   44.   (Previously Presented) The computer-readable medium of Claim 29, wherein:

2   the step of a central server receiving from an electronic mail server a message signature

3   includes receiving a set of one or more values generated by a one-way hash

4   function; and

5   the step of said electronic mail server determining whether a portion of said message

6   signature matches includes determining whether at least one of said set of one or

7   more values matches a threshold number of previously received values generated

8   by a one-way hash function.

1 45. (Previously Presented) The computer-readable medium of Claim 44, the steps further

2   including the step of transmitting one or more messages to said electronic mail server

3   specifying changes to one or more routines invoked by said electronic mail server to

4   generate message signatures.

1 46. (Previously Presented) The computer-readable medium of Claim 45, wherein the step of

2   transmitting one or more messages includes transmitting platform-independent byte code.

1 47. (Previously Presented) The computer-readable medium of Claim 31, wherein:

2   the step of a central server receiving includes receiving a particular recipient signature

3   associated with a particular message signature; and

4   the step of generating counts includes generating counts of how many times said one or

5   more message signature elements match message signature elements that are:

6   generated for other electronic mail messages, and

7   associated with a recipient signature that differs from said particular recipient

8   signature.

1 48. (Previously Presented) The computer-readable medium of Claim 47, wherein the step of

2   transmitting messages reflecting said counts includes transmitting said counts.

1 49. (Previously Presented) The computer-readable medium of Claim 47, wherein the step of

2   transmitting messages reflecting said counts includes transmitting message signature

3   elements associated with counts greater than a threshold.

1 50. (Currently Amended) A method of managing electronic mail, the method comprising the

2   computer-implemented steps of:

3   automatically generating a set of certain criteria based on contents of a plurality of

4   electronic mail messages received over a network;

5   wherein the step of automatically generating a set of certain criteria includes, in response

6   to determining that a threshold number of said plurality of electronic mail

7   messages have a particular content, generating one or more criteria that classifies

8   electronic mail messages that have said particular content as a first type of

9   electronic mail;

10   receiving an electronic mail message over said network;

11   determining whether said electronic mail message satisfies said set of one or more criteria;

12   if said electronic mail message satisfies said set of one or more criteria, then processing

13   said electronic mail message as said first type of electronic mail;

14   if said electronic mail message does not satisfy said set of one or more criteria, then

15   processing said electronic mail message as a second type of electronic mail;

16   wherein said first type of electronic mail is processed differently than said second type of

17   electronic mail; and

18   wherein the step of generating a set determining that a threshold number of criteria based

19   on contents of a said plurality of electronic mail messages received over said

20   network have a particular content includes the steps of:

21   generating message signatures for each electronic mail message of said plurality

22   of electronic mail messages, wherein each message signature includes one

23   or more signature elements; and

24   counting how many of said one or more signature elements match signature

25   elements from other message signatures.

1 51. (Currently Amended) The method of Claim 50 wherein the step of determining whether

2   said electronic mail message satisfies said ~~set of~~one or more criteria includes determining

3   whether a message signature generated for said electronic mail message includes at least

4   one signature element that matches a threshold number of signature elements of

5   previously generated message signatures.

1 52. (Previously Presented) The method of Claim 51 wherein the step of determining whether

2   a message signature generated for said electronic mail message includes at least one

3   signature element that matches a threshold number of signature elements further includes

4   determining whether a message signature generated for said electronic mail message

5   includes at least one signature element that matches a threshold number of signature

6   elements of previously generated message signatures that are associated with a period of

7   time.

1 53. (Currently Amended) A computer-readable medium carrying one or more sequences of

2   one or more instructions for managing electronic mail, wherein the execution of the one

3   or more sequences of the one or more instructions causes the one or more processors to

4   perform the steps of:

5   automatically generating ~~a set of~~<u>certain</u> criteria based on contents of a plurality of

6   electronic mail messages received over a network;

7   wherein the step of automatically generating ~~a set of~~<u>certain</u> criteria includes, in response

8   to determining that a threshold number of said plurality of electronic mail

9   messages have a particular content, generating <u>one or more</u> criteria that classifies

10   electronic mail messages that have said particular content as a first type of

11   electronic mail;

12   receiving an electronic mail message over said network;

13   determining whether said electronic mail message satisfies said ~~set of~~<u>one or more</u> criteria;

14   if said electronic mail message satisfies said ~~set of~~<u>one or more</u> criteria, then processing

15   said electronic mail message as said first type of electronic mail;

16   if said electronic mail message does not satisfy said ~~set of~~<u>one or more</u> criteria, then

17   processing said electronic mail message as a second type of electronic mail;

18   wherein said first type of electronic mail is processed differently than said second type of

19   electronic mail; ~~and~~

20   wherein the step of ~~generating a set~~<u>determining that a threshold number</u> of ~~criteria based~~

21   ~~on contents of a~~<u>said</u> plurality of electronic mail messages ~~received over said~~

22   ~~network~~<u>have a particular content</u> includes the steps of:

23   generating message signatures for each electronic mail message of said plurality

24   of electronic mail messages, wherein each message signature includes one

25   or more signature elements; and

26   counting how many of said one or more signature elements match signature

27   elements from other message signatures.

1   54.   (Currently Amended) The computer-readable medium of Claim 53 wherein the step of

2   determining whether said electronic mail message satisfies said ~~set of~~one or more criteria

3   includes determining whether a message signature generated for said electronic mail

4   message includes at least one signature element that matches a threshold number of

5   signature elements of previously generated message signatures.

1   55.   (Previously Presented) The computer-readable medium of Claim 54 wherein the step of

2   determining whether a message signature generated for said electronic mail message

3   includes at least one signature element that matches a threshold number of signature

4   elements further includes determining whether a message signature generated for said

5   electronic mail message includes at least one signature element that matches a threshold

6   number of signature elements of previously generated message signatures that are

7   associated with a period of time.